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SAVE GRAIN THROUGH

Good Pasture!



U. S. DEPARTMENT OF AGRICULTURE
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GRASS is a crop—a good crop or a poor one. Farmers who make a good crop out of their grass help themselves and help their Nation.

No other crop can match grass in performing wonders for those who handle it right.

Grass is a cheap feed. That's important at any time, but it is doubly so when grain is hard to get and high in price.

Grass is a nourishing feed—no matter what kind of animals or poultry consume it. The better the grass, the better the herd or flock.


Farmers who are short of feed and are unable to keep as much livestock as they should are often able to lick such problems through pasture improvement.

It can be said flatly that *good pasture makes livestock healthier and makes farmers wealthier.*

Dairy cattle.—Dairy cows get their best and cheapest feed from pasture. They need less grain and their milk is of better quality when they are on good pasture. A good dairy cow on adequate pasture alone will give 25 to 30 pounds of milk a day. A cow on pasture that is not of the best quality will still receive the daily equivalent of 8 pounds of hay, 25 pounds of silage, and 4 pounds of grain. Dairy heifers can be raised on good pasture and roughage.

Beef cattle.—Steers started on grass and finished by dry-lot feeding will use only half as much corn per 100 pounds of added weight as those fed in the dry lot throughout. An acre of good bluegrass will equal 58 bushels of corn in adding weight to cattle.

Hogs.—Grain-fed pigs are healthier and gain faster when they are allowed to graze. A combination of permanent and temporary pasture can save up to half of the concentrated protein supplement needed by pigs in



dry (bare) lot. Rye, rape, oats, wheat, soybeans, cowpeas, and field peas provide good temporary pasture. Alfalfa, Ladino and other clovers, and Korean lespe-deza make good permanent pasture.

Poultry.—Poultry in good pasture eat about 10 percent less mash and grain than they do in confinement. Pasture is especially important in the rearing of healthy, vigorous pullets for flock replacements.

Turkeys.—Green, succulent pasture for turkeys more than 8 weeks old may save up to 20 percent of feed required. Alfalfa, Ladino and other clovers, and temporary pastures of rape, cereal grains, and soybeans are excellent.

Here are six pasture recommendations that every farmer, regardless of where he lives, should put into practice:

1. **Fertilize adequately.**
2. **Use good seed.**
3. **Combine adapted grasses with legumes.**
4. **Control weeds.**
5. **Regulate grazing.**
6. **Conserve surplus.**

Pastures can be grown in nearly every section of the United States. Although soil and climatic conditions vary widely from State to State and from county to county, recommended pasture programs have been worked out in many areas. *For specific recommendations on pasture improvement, farmers should see their county agent.*

Fertilize Adequately

A small investment in lime and superphosphate usually pays high returns in better pasture stands. Legumes like lime. Legumes grow satisfactorily and fix nitrogen efficiently only when the soil is well supplied with lime. Many pasture soils in the humid regions of the United States need lime. The benefit of an ordinary application of lime *usually lasts 10 years or longer*. A season's growth of alfalfa under favorable conditions may fix atmospheric nitrogen worth more than enough to pay the costs.

Barnyard manure fortified with superphosphate has proved valuable in improving pastures. It should be put on in late fall or early spring, 6 to 8 tons to the acre, with superphosphate added at the rate of 100 to 200 pounds to the acre. Harrowing during the season will spread cattle droppings. Top dressings of phosphate and potash will improve the fertility of many pasture soils.

Use Good Seed

Certified seed adapted to local conditions gives best results. The supply of grass seed for humid areas is plentiful. That for arid sections is less plentiful. Grasses recommended are:

SOUTH AND EAST—Coastal Bermuda, Tift, or Sweet Sudan, or Lincoln or other southern or central strains of brome grass.

CENTRAL AND SOUTHERN PLAINS—Buffalo grass or blue grama; side-oats grama.

NORTHERN PLAINS—Wheatgrasses or wild-rye.

NORTHERN WETLANDS—Reed canary grass, tall fescue, meadow foxtail, or redtop.

SOUTHERN WETLANDS—Tall fescue will serve as a winter pasture crop.

All legume seed should be treated with the proper culture just before seeding. In this way the most efficient bacteria will be at hand for fixing atmospheric nitrogen in the soil. Birdsfoot trefoil requires a special strain of bacteria.

Use Mixtures

Mixtures of grasses and legumes may produce two or three times as much pasture or hay as grass alone. On severely eroded land such mixtures may produce more feed per acre than corn and grain crops.

In Northeastern States, orchard grass and Ladino clover seem to be the most satisfactory combination. Orchard grass recovers rapidly after grazing or mowing, and it continues to grow during midsummer when temperatures may be high and rainfall limited. Ladino clover, a relatively new legume in the Northeast, is a perennial. It is more productive for pasture or hay than white clover. The mixture requires good fertility.

In humid sections of the South, crimson clover makes a good legume combination with ryegrass or Coastal Bermuda. It may be mixed with winter oats for fall sowing. White Dutch clover and Dallas grass are furnishing good grazing from about March 1 to November 1 in the Piedmont and Gulf coast area. Temporary crops such as Sudan grass, pearl millet, and kudzu may be used to supplement this permanent pasture.

In the Middle West, sweetclover is recommended as a legume for renovating pastures. The seed is less expensive than most common legumes and the plant is resistant to heat and drought. Red and Ladino clover produce abundantly from relatively low seeding rates. Alsike clover is particularly good on wet soils. Alfalfa is recommended for use on the deep fertile soils.

In the irrigated mountain valleys of the West, smooth brome, orchard, tall fescue, reed canary, red clover, Ladino clover, and alfalfa are relatively high producers. Kentucky bluegrass, meadow fescue, perennial rye, meadow foxtail, strawberry clover, and common white clover, however, are relatively unproductive in such areas.

In California, standard recommended mixture consists of Ladino clover, domestic ryegrass, perennial ryegrass, orchard grass, and tall fescue. Ladino clover or birdsfoot trefoil may be added to stands of Johnson or Bermuda grass to enrich the feed and increase the carrying capacity.

Grain crops help pastures. In humid sections of the South, winter oats planted alone or mixed with crimson clover are recommended for fall sowing. Further north, all small grains can be used for fall and early spring pasture.

Control Weeds

Weed control calls for liberal application of fertilizer, mowing at least once during flush growth in spring, and for moderate grazing throughout the year. On good soil, grasses and legumes will crowd out weeds if properly fertilized, mowed, and grazed. Heavy weed growth may show the need for renovating and reseeding.

The new weed killer, 2,4-D, costs too much for general use on pastures. It also injures clovers, alfalfa, lespedeza, and other legumes. It may be used, however, to kill out starting patches of garlic in dairy pastures, and in such cases should be applied before March 1.

Brushy pasture shrubs can be killed by cutting them off at ground level and treating the freshly cut stumps with a strong solution of 2,4-D or with ammonium sulfamate (Ammate).

CAUTION: While 2,4-D is not highly poisonous, ammonium sulfamate is considerably more poisonous in undiluted form. Avoid breathing the sprays of either compound. Consult the county agent for additional safeguards in handling.

Regulate Grazing

This may be done through rotation, when the pasture is divided and the livestock moved to new grazing areas. It may be done by topping the beef herd in August and taking out cattle that are ready for market.

Rotation grazing must be done with brome grass and alfalfa, or orchard grass and Ladino clover, and other tall, rapidly growing mixtures, or the plantings may die out or give poor yields. Rotation grazing does less good in permanent pasture. Deferred grazing often helps range land.

In the East, alfalfa should not be grazed from early September until after the first killing frost. Alfalfa may

die out if it is grazed during its active growth in the fall. It will not be hurt, however, if it is grazed moderately after the first killing frost.

Winter grain crops planted in the late August or early September and allowed to grow to a 10- or 12-inch height may be grazed safely down to 3 or 4 inches and still survive the winter.

As a safeguard against bloat when grazing alfalfa and other pastures composed largely of legumes, cows should be fed some dry hay before turning them into the pasture. Also, they should not be allowed in the pasture while the legumes are in an extremely young stage.

Sudan grass should be 12 to 15 inches high before it is grazed. To avoid danger of prussic acid poisoning, Sudan grass should not be grazed during severe drought or right after a frost.

Conserve Surplus

Spring surpluses of orchard grass and Ladino clover or brome grass and alfalfa make good silage. They should be harvested before the heads form. Since most livestock likes growing plants better than mature plants, it sometimes pays to mow clover to keep it from maturing.

Southwestern livestock growers should leave a blue grama stubble of not less than 2 inches and from 25 to 30 percent of the flower stalks to insure a good stand the following season.

